



[TRADING AS DARRINGTON QUARRIES LIMITED]

**ENVIRONMENTAL PERMIT VARIATION APPLICATION
SUPPORTING STATEMENT**

**SKELBROOKE QUARRY EXTENSION AREA
STRAIGHT LANE
SKELBROOKE
DONCASTER
SOUTH YORKSHIRE
DN6 8LY**

**Document Reference: WR7640/04.R2
December 2023**



**Project Quality Assurance
Information Sheet**

**ENVIRONMENTAL PERMIT VARIATION APPLICATION - SUPPORTING STATEMENT
SKELBROOKE QUARRY EXTENSION AREA, STRAIGHT LANE, SKELBROOKE,
DONCASTER**

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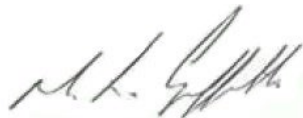
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**SKELBROOKE QUARRY EXTENSION AREA
STRAIGHT LANE
SKELBROOKE
DONCASTER**

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CONTENTS

1.0	INTRODUCTION.....	1
1.1	Scope	1
1.2	Background.....	1
2.0	WASTE MANAGEMENT AND CONTROL	3
2.1	Permitted Wastes.....	3
2.2	Waste Acceptance Procedures	3
3.0	ENVIRONMENTAL MANAGEMENT SYSTEM SUMMARY	9
3.1	Introduction	9
3.2	Outline Development Proposals	9
3.3	Amenity Management and Monitoring	10
3.4	Management Systems	13
3.5	Equipment Maintenance	13
3.6	Accident Management	13
3.7	Operational Contingency Plans.....	17
3.8	Monitoring Plan.....	18
3.9	Complaints.....	18
3.10	Staff Training and Competence.....	19
3.11	Documentation of Legislative and Other Requirements	20
3.12	Management Reviews	20
3.13	Additional Management Certification.....	20

LIST OF DRAWINGS

WR7640/10/SS1	Skelbrooke Quarry Complex Site Boundaries Plan
WR7640/10/SS2	Receptors and Pathways

LIST OF APPENDICES

Appendix SS1	List of Wastes
Appendix SS2	Management System Certificates
Appendix SS3	Skelbrooke Quarry Noise Impact Assessment (2021)

LIST OF TABLES

Table SS1:	Leaching Limit Values	4
Table SS2:	Limits values for total content of organic parameters for inert waste.....	5
Table SS3:	Waste Acceptance Criteria for final restoration soil profile	5
Table SS4:	Individual PAH Waste Acceptance Criteria for Final 2m	6

1.0 INTRODUCTION

1.1 Scope

- 1.1.1 Sirius Environmental Limited ('Sirius') has been commissioned by Darrington Quarries Limited ('DQL'), part of the FCC Group of Companies, to prepare an application to vary the Environmental Permit EPR/CP3994ZR to approve a revised scheme of restoration for the disused quarry extension area.
- 1.1.2 The current permit authorises a restoration of the quarry by means of landfill disposal operations, although the site is currently 'closed', and no wastes are therefore permitted to be deposited at the site. The revised scheme of quarry restoration seeks to achieve final levels by the permanent deposit of suitable wastes as a waste recovery operation due to the flooded nature of the void.
- 1.1.3 The application is supported by the following documents:-
- Application forms (Parts A, C2, C4 and F1);
 - Non-Technical Summary;
 - Supporting Statement;
 - Environmental Setting and Site Design Report;
 - Hydrogeological Risk Assessment;
 - Environmental and Accident Risk Assessment;
 - Waste Recovery Plan;
 - Dust Management Plan; and
 - Supporting Drawings.

1.2 Background

License History

- 1.2.1 Environmental Permit EPR/CP3994ZR was originally issued under the Waste Management Licensing Regulations 1994 in July 2001 (Licence Ref.: EAWML65052). The permit originally authorised the disposal of biodegradable wastes in engineered cells, although no cells have been engineered within the extension area to date and no wastes therefore deposited.
- 1.2.2 In 2007, the permit/licence was modified to remove conditions allowing the acceptance of waste at the site, with the exception of waste to support landfill restoration activities (where appropriate), subject to prior written agreement with the Environment Agency.
- 1.2.3 In January 2015, an EA initiated variation to the permit was determined to close the facility following which no wastes are currently permitted for disposal at the site. A Closure Plan (Doc. Ref.: 1776/R/025/1) dated October 2014 was incorporated into the permit as part of this variation.
- 1.2.4 The extension area forms part of wider former limestone quarry and landfill complex located to the southwest of the extension area, which has already been restored by landfilling under a separately regulated landfill activity (Environment Permit EPR/BV1470IE). Completion to the final levels approved under the planning consent for the site has yet to be achieved at the adjacent Skelbrooke Landfill facility, but all existing deposits are currently capped and definite closure has been agreed with the EA.
- 1.2.5 The extension area void is flooded due to groundwater levels within the surrounding geology, although the site also forms part of the surface water management system for the adjacent, closed landfill facility.

- 1.2.6 The site originally benefited from a discharge consent that allowed the discharge of surface water via a land drain located along the north-eastern boundary of the extension area, in which the volumes and rate of discharge were limited to 200m³/day and 20m³/hr respectively. This consent was subsequently incorporated into Environmental Permit EPR/BV1470IE for the main landfill.

Development History

- 1.2.7 Quarry operations at Skelbrooke Quarry have been present since the mid-1800's. The quarry has been developed within the Permian Magnesian Limestone, subject to a number of planning approvals. Messrs J. Hinchcliffe & Son Ltd developed quarry operations prior to the mid-1970's. Darrington Quarries Ltd has operated the site since 1976. Darrington Quarries became part of Waste Recycling Group plc in 1998. No other operations occurred within the area of Skelbrooke Quarry prior to the development of the quarry.
- 1.2.8 The development layout of the main Skelbrooke Landfill facility to the south of the northern extension area is illustrated in **Drawing No. WR7640/10/SS1**. Cell 1 of the main Skelbrooke Landfill Site was initially developed by Darrington Quarries in 1992. Landfilling within Cell 1 was completed in June 1993 and the cell capped off in August 1993. Subsequent landfill cells 2 to 5 were developed, filled and capped between June 1993 and October 2001. Tipping operations were suspended between August 1995 and October 1996, and again between November 1998 and July 1999. With landfilling operations within Cell 6 commencing in August 2001 and ceasing in 2005. The main landfill area is currently closed to the receipt of further waste deposits, although the site has yet to be filled to its approved final landform. The site was permitted to receive hazardous, non-hazardous and inert wastes.
- 1.2.9 Mineral extraction in the northern extension area commenced around 1998 and was completed prior to 2001/02, following which the void was allowed to flood with groundwater. Bathymetric surveys of the flooded section of the extension area indicates that this area has been excavated to depths of between ~16 and 20mAOD, relative to surrounding ground levels of ~35mAOD and 29mAOD along the south-western and north-eastern edges of the flooded extension area. This void is also now used to balance surface water run-off from the restored surface of the adjacent landfill site prior to pumped discharge of the waters to a tributary of The Skell river that flows north from the edge of the site.

2.0 WASTE MANAGEMENT AND CONTROL

2.1 Permitted Wastes

- 2.1.1 The waste codes and associated descriptions that will be permitted for recovery in the extension area are presented in **Appendix SS1**. All wastes will be non-hazardous in nature and will consist of a pollution potential that is less than, or equal to, that of the surrounding geology/water, and will principally be sourced from sites within the locality of the site which will ensure a low risk of contamination. The waste to be accepted at the site will not have undergone significant physical, chemical and biological transformation. This will comprise of materials with low pollution potential from low contamination risk sources, including quarry, construction product manufacturing, construction, demolition and excavation wastes and products, as well as soils from local greenfield or low-risk brownfield development sites.
- 2.1.2 Materials to be accepted will be in line with Environment Agency guidance. Where required during pre-acceptance procedures, the operator will undertake an analysis of the material prior to deposit to ensure it is suitable.
- 2.1.3 Waste will be accepted at the site until final restoration levels are reached. This will require the deposit of material below the water table, which currently ranges between 24.3 and 31mAOD (range of groundwater levels recorded in groundwater monitoring borehole SK02), compared to the void basal levels of between 16 and 20 mAOD. In order to achieve the current approved scheme of restoration ~230,000 cubic metres of non-hazardous material will be deposited. This could be achieved over the period of a year or possibly longer, subject to waste availability. Note, under the previous approved scheme of restoration the modelled void capacity was estimated as ~235,100m³. This volume has principally been reduced to provide greater flood attenuation and freeboard capacity in the surface water lagoon, in line with current guideline requirements. Furthermore, a review of materials balances will result in approximately 6,000m³ of the 230,000m³ being sourced from existing deposits at the site, reducing required import balance to ~224,000m³.

2.2 Waste Acceptance Procedures

- 2.2.1 The facility is proposing to principally import mineral wastes from local quarries and soils from low contamination risk local development sites, although other low risk waste sources will also be accepted at the site.
- 2.2.2 DQL has defined procedures for the acceptance of waste at its waste facilities sites which are set out in accordance with the relevant EA guidance. This is to ensure that waste material received is acceptable for deposit at the facility.
- 2.2.3 The acceptance procedures ensure compliance with the requirement implicit under Duty of Care when dealing with waste materials, particularly the need to assess the material from initial customer enquiry to when it is deposited on site. The procedures are divided into 'Pre-acceptance' and 'Acceptance' measures.

Pre-Acceptance

- 2.2.4 Prior to acceptance of waste at the site the waste producer must provide adequate information relating to the waste to determine the correct waste code and the characteristics of the waste to ensure that it complies with the waste streams suitable for deposit at the site.

- 2.2.5 Given that the majority of wastes to be accepted on site will be deposited below the water table, it has been determined that all incoming waste sources will be sampled and tested by the producer prior to acceptance. This includes both absolute non-hazardous and mirror entry EWC waste codes.
- 2.2.6 In order to determine if the waste displays any hazardous properties, the chemical composition of the waste should be identified in the first instance. This will be achieved via:
- Prior knowledge of the content of the waste, for example, accessing data from past testing of soils;
 - Good understanding of the historic use of the site/waste to ensure there has a low risk from contaminative uses;
 - Sampling and analysis.
- 2.2.7 Once an assessment for any hazardous properties has been undertaken, the appropriate EWC code can be applied to the waste. If testing of the waste demonstrates that it can be classified as non-hazardous then the waste can be accepted on site provided that the relevant duty of care paperwork is supplied by the provider. If testing demonstrates that the waste exceeds substance limits as set out in WM3 then the waste should be treated as hazardous and cannot be accepted at Skelbrooke.
- 2.2.8 This should be by means of the Company Waste Characterisation Form, or similar document, but must include the necessary information for a Level 1 Basic Characterisation as specified in the Landfill Regulations. The following information will be required as minimum:-
- Waste source and origin;
 - The code applicable to the waste under the European Waste Catalogue (EWC);
 - Determination if the waste has any hazardous properties as per WM3;
 - The process producing the waste (including a description of the process, its SIC code and characteristics of its raw materials and products which may affect its behaviour upon deposit);
 - The waste treatment applied, or a statement of why treatment is not considered necessary;
 - The appearance of the waste (including smell, colour, consistency and physical form);
 - Confirmation that the waste is not prohibited from deposit at the facility (for example liquid waste and whole used tyres);
 - Confirmation of whether the waste requires testing.
- 2.2.9 Wastes may also not be accepted unless representative samples of the waste have been submitted for compliance leaching testing at a solid to liquid ratio (L/S) of 10 l/kg by a suitable laboratory, in accordance with BS EN 12457:2002. The wastes must not exceed the limit values provided in **Table SS1**. These values have been derived based on the natural baseline groundwater chemistry associated with the Magnesian Limestone.

Table SS1: Leaching Limit Values

Substance	L/S = 10l/kg Limit Value (mg/kg)
Arsenic	0.5
Cadmium	0.04
Chromium	0.5
Copper	2
Nickel	0.4

Substance	L/S = 10l/kg Limit Value (mg/kg)
Lead	0.5
Mercury	0.01
Nickel	0.4
Phenol	1
Zinc	4
Chloride	2,400
Fluoride	30
Sulphate	3,000

- 2.2.10 In addition to the leaching limit values above the wastes must meet the additional limit values provided in **Table SS2**.

Table SS2: Limits values for total content of organic parameters for inert waste

Parameter	Limit Value (mg/kg)
TOC*	30,000 or 3%w/w
BTEX	6
PCBs	1
Mineral Oil (C10 to C40)	500
PAHs	100

* - In the case of soils a higher limit value may be admitted by the Environment Agency, provided that the Dissolved Organic Carbon value of 500 mg/kg is achieved at L/S 10 l/kg at the pH of the soil or at a pH.

- 2.2.11 Further information on waste characterisation requirements can be found in Environment Agency guidance “Waste acceptance procedures for deposit for recovery”

Restoration Soils

- 2.2.12 The soil profile within 2m of the final levels will be subject to the limits set out in **Tables SS3** and **SS4** below. These thresholds account for the sites end use, comprising grassland and trees/shrubs.

Table SS3: Waste Acceptance Criteria for final restoration soil profile

Component ⁴	Proposed Waste Acceptance Limit ¹ (mg/kg)	Source and Comments
Arsenic	100	Less than Atkins ATRISK soil SSV (for open spaces)
Cadmium	50	Less than Atkins ATRISK soil SSV (for open spaces)
Chromium (Non-Hexavalent)	1000	Less than Atkins ATRISK soil SSV (for open spaces)
Chromium (Hexavalent)	200	Less than Atkins ATRISK soil SSV (for open spaces)
Copper	500 ³	Possible phytotoxic substance – significantly less than Atkins ATRISK soil SSV (for open spaces)
Lead	800	Less than Atkins ATRISK soil SSV (for open spaces)
Mercury	20	Less than Atkins ATRISK soil SSV (for open spaces)
Nickel	400	Possible phytotoxic substance – significantly less than Atkins ATRISK soil SSV (for open spaces)

Component ⁴	Proposed Waste Acceptance Limit ¹ (mg/kg)	Source and Comments
		spaces) and approximately 20% hazardous waste threshold for worst-case compound
Selenium	500	Less than Atkins ATRISK soil SSV (for open spaces)
Zinc	500 ³	Possible phytotoxic substance – significantly less than Atkins ATRISK soil SSV (for open spaces)
Boron (water soluble)	3	Former ICRCL Limit – no SSVs determined for open spaces
pH	5 – 10	Guideline values to avoid extreme acidic or alkaline conditions
Sulphate (water soluble)	2000	Former ICRCL Limit – no SSVs determined for open spaces
Free Cyanide	30	Less than Atkins ATRISK soil SSV (for open spaces)
Phenol	2000	Less than Atkins ATRISK soil SSV (for open spaces)
Total Petroleum Hydrocarbons / mineral oil (Unspeciated)	800	Significantly less than Atkins ATRISK soil SSV (for open spaces) and approximately 20% hazardous waste threshold
Petroleum Range Organics (PRO) (C6-C10)	450	Less than Atkins ATRISK soil SSV (for open spaces) for aliphatic PRO C8-C10
Diesel Range Organics (DRO) (C10-C25)	1000	Significantly less than Atkins ATRISK soil SSV (for open spaces) and an order of magnitude below the hazardous waste threshold
Unknown lubricating / other oil (not fuel) (Inc C25-C40) (no PAH Speciation)	800	Significantly less than Atkins ATRISK soil SSV (for open spaces) and approximately 20% hazardous waste threshold
PAHs (Total) – Unspeciated (must be non-hazardous)	900	Less than former ICRCL limit (for landscaped areas) – no SSVs determined for open spaces for total PAHs. Any total PAH analysis exceeding 100mg/kg requires speciation and compliance with individual PAH concentrations (at or below SSVs for open spaces) as described in Table RP5 .

Notes:

¹ – All thresholds for metals stated in mg/kg dry weight

² – All PAHs must individually be classified as non-hazardous. This is especially relevant for any PAHs which have been assigned a substance specific hazardous threshold (used for H14 ecotoxic hazardous property assessment).

³ – The acceptable concentration of the potentially phytotoxic metals of copper and zinc may be elevated to 800mg/kg (dry weight) for soils where there is comprehensive evidence that the pH is at or greater than 7.

⁴ – For soil wastes expected to have a potential for elevated conductivity (such as soils containing ashes, dredgings, silts etc) then there is a requirement to determine the conductivity of the soil wastes. The guideline concentration to be used for conductivity is 3,700µS/cm.

Table SS4: Individual PAH Waste Acceptance Criteria for Final 2m

Component	Proposed Waste Acceptance Limit ¹ (mg/kg)	Source and Comments
Acenaphthene	250	Less than Atkins ATRISK soil SSV (for open spaces)
Acenaphthylene	250	Less than Atkins ATRISK soil SSV (for open spaces)
Anthracene	250	Less than Atkins ATRISK soil SSV (for open spaces)

Benzo(a)anthracene	20	Less than Atkins ATRISK soil SSV (for open spaces) and approximately 20% hazardous waste threshold
Benzo(a)pyrene	4.2	Atkins ATRISK soil SSV (for open spaces)
Benzo(b)fluoranthene	35	Less than Atkins ATRISK soil SSV (for open spaces)
Benzo(g,h,i)perylene	250	Less than Atkins ATRISK soil SSV (for open spaces)
Benzo(k)fluoranthene	250	Less than Atkins ATRISK soil SSV (for open spaces)
Chrysene	250	Less than Atkins ATRISK soil SSV (for open spaces)
Dibenzo(ah)anthracene	4.5	Atkins ATRISK soil SSV (for open spaces)
Fluoranthene	250	Less than Atkins ATRISK soil SSV (for open spaces)
Fluorene	250	Less than Atkins ATRISK soil SSV (for open spaces)
Indeno(1,2,3 - cd)pyrene	35	Less than Atkins ATRISK soil SSV (for open spaces)
Naphthalene	250	Less than Atkins ATRISK soil SSV (for open spaces)
Phenanthrene	250	Less than Atkins ATRISK soil SSV (for open spaces)
Pyrene	250	Less than Atkins ATRISK soil SSV (for open spaces)

Notes:

1 – All thresholds for metals stated in mg/kg dry weight

2.2.13 The proposed restoration soil guideline concentrations for the final 2m to be imported to a 'generic' restoration activity are derived from screening values based on an Open Space end-use with limited public access. These Soil Screening Values (SSVs) have been derived by Atkins and their ATRISK guidance. The Atkins ATRISK SSVs are calculated by using the appropriate Contaminated Land Exposure Assessment Protocol (CLEA). The proposed 'generic' end-use of the restoration is that of grassland and trees/shrubs which are planted on the restoration area and maintained throughout the aftercare period specified in the planning permission.

2.2.14 For the majority of the components, the guideline concentration has been set at a value significantly lower than the corresponding SSV to ensure a conservative approach has been taken and also to ensure that the hazardous waste threshold will not be exceeded. For the potential phytotoxic metals of copper and zinc, a lower guideline concentration has been applied; unless evidence is available that the soil material is not acidic.

Waste Acceptance

2.2.15 Once the acceptable material arrives at site, as arranged during the Pre-acceptance measures, it will be subjected to the appropriate on-site verification 'Acceptance' checks. A record is kept of the:-

- Date and time of waste deliveries
- Quantities and the nature of the waste deposited at the site
- Name of the company and their representation delivering (if applicable) each load of waste and vehicle registration number

2.2.16 Where safe, deliveries will be visually inspected at the weighbridge by a trained staff person to determine the basic characteristics of the waste and ensure it accords with the pre-acceptance paperwork.

- 2.2.17 Should waste be found to be unsuitable, the load will remain on the vehicle for immediate off-site transfer. Any such events will be recorded in the site diary and the Regulator informed where necessary.
- 2.2.18 Where visual inspection of the waste on the vehicle is not feasible, waste will be tipped along the edge of the flooded void for inspection.
- 2.2.19 Should a load be deposited at the site and found to be non-compliant by machine operatives, the material will be immediately reloaded and rejected off site having given consideration for the relevant Duty of Care requirements. Should the producer/carrier have left the site, this load will be placed in a quarantine area awaiting collection for delivery to a suitably permitted facility. Such events will be recorded in the site diary.
- 2.2.20 Loads considered suitable for acceptance on site will undergo temporary storage until on-site verification testing is conducted. Initially, the temporary storage area for wastes will be located to the south of the void, and as different stages of infilling are accomplished, this storage area will transition to the filled void areas.

Verification Testing

- 2.2.21 In addition to basic visual inspection of the wastes, all waste sources that will be tipped directly into water will undergo verification testing as a sampling ratio of 1 sample for every 2,000 tonnes (or part thereof).
- 2.2.22 For soils to be deposited above the water table, if the total quantity of waste to be received from a single source or carrier is to exceed 2,000 tonnes in any single project or year at least one sample will be retrieved from each source transferred to the site for disposal and subjected to testing as per the parameters specified in **Table SS1 and Table SS2**.
- 2.2.23 Once verification testing has been completed and the materials are found to be in compliance, they will then be permitted to be tipped into the landfill. Those that are found to not be suitable for tipping will be quarantined pending removal offsite at appropriate facility.

3.0 ENVIRONMENTAL MANAGEMENT SYSTEM SUMMARY

3.1 Introduction

- 3.1.1 The Operator currently benefits from the advantages of an environmental management system accredited to ISO 14001 and a quality management system accredited to ISO 9001, both overseeing the ongoing operations at the site.
- 3.1.2 Alongside a site-specific EMS, FCC Environment has opted to integrate the Operator Competence System developed by Energy & Utility Skills (EU Skills) and Environmental Services Associated (ESA) 'Competence Management System' (CMS). This CMS holds approval from DEFRA and the EA to fulfil the competency requirement for Environmental Permits, with relevant certifications detailed in **Appendix SS2**.
- 3.1.3 The EMS outlines the site's management structure, specifying the roles and responsibilities of all personnel. The development of the EMS encompasses an Environmental Policy, Health and Safety Procedures, and an operational guidance manual containing process plant operating procedures for both standard and emergency conditions.
- 3.1.4 To ensure proper functioning, the Operator will create documented management procedures and written work instructions that integrate environmental considerations into the operation of the facility.
- 3.1.5 The management system will also encompass various procedures and documents currently utilized in the site's ongoing operations. These will be reviewed and updated as and when necessary.

3.2 Outline Development Proposals

Geological Barrier

- 3.2.1 Due to the flooded nature of the quarry void, the construction of an Artificially Established Geological Barrier will not be possible. The requirement of Article 22 to the Environmental Permitting Regulations 2016 (as amended) will be met through the deposit of wastes in which their pollution potential is less than or equal to the natural quality of the surrounding geology/water and is physically, biologically and chemically suitable.

Groundwater Management

- 3.2.2 The proposals involve the direct tipping of uncontaminated wastes into the flooded quarry void. No groundwater management will be necessary to support restoration of the quarry extension area, although monitoring of the water quality will be undertaken to demonstrate that the operations are not leading to the deterioration of groundwater quality.

Stability Risk Assessment

- 3.2.3 As no engineered containment systems will be constructed and waste will be principally deposited directly into water no assessment of the stability risks is considered necessary for these elements. The final restored surface of the site will also consist of shallow gradients which are not at significant risk of becoming unstable.

3.3 Amenity Management and Monitoring

Introduction

- 3.3.1 The management system incorporates strategies to control odours, dust, noise, and other environmental emissions. The competent technical manager conducts daily checks to ensure the effectiveness of these measures, evaluating and determining the most suitable course of action as needed.
- 3.3.2 An Environmental and Accident Risk Assessment (*Doc. Ref.: WR7640/08*) has been carried out for the proposed quarry restoration operations. A plan detailing all nearby sensitive receptors has also been produced and is included in **Drawing No. WR7640/10/SS2**. Outlined details of the methods and procedures to be implemented to manage and monitor any potential emissions from the operations are presented below.

Dust/Particulate Matter

- 3.3.3 Owing to the fact that waste will largely be deposited directly into flooded quarry void the potential for the migration of dust and particulate matter is very low. As waste levels rise above water levels within the flooding void surface waters that will be continuously drained into the area and used to support dust suppression by means of a towed bowser or equivalent. Dust management will primarily comprise of enforcing speed limits on site, ensuring delivery vehicles are sheeted or fully enclosed and conducting visual assessments of dust generation on site. Seeding/planting will also be established as soon as reasonably practicable once final levels have been achieved across relevant areas. A Dust Management Plan (*Doc. Ref.: WR7640/12*) has been prepared in support of this application.

Odour

- 3.3.4 Due to the properties of the waste to be accepted at Skelbrooke, the odour generation potential of the operations is negligible. Odour management will therefore be limited to the assurance that only specific waste is accepted and deposited at the facility, supported by visual inspection of waste as they are delivered to and discharged at the site.

Mud & Debris

- 3.3.5 The dispersal of dirt and mud originating at the site onto public roads and the surrounding land will be controlled.
- 3.3.6 The following operational procedures will be implemented to ensure that dirt and mud do not reach the public highways and surrounding land:
- Metalled surfacing is provided between the site access point with Boundary Lane and the tipping areas;
 - Wheel wash facilities will be located along internal haul routes;
 - Plant and machinery will be thoroughly cleaned before leaving the site
 - Mechanical sweeper to be deployed to remediate any mud and debris that has been deposited on to the public highway or metalled access road.
- 3.3.7 The Site Business Manager or nominated deputy will regularly inspect the entrance areas for evidence of mud and debris that has been trafficked.

Litter

3.3.8 The wastes to be deposited at the quarry will not contain any significant quantity of light fractions. All loads will be inspected upon delivery and/or discharge at the site to ensure contaminated wastes are not accepted.

3.3.9 The site will be inspected daily for evidence of litter, with litter picking undertaken as necessary.

Birds, Vermin and Insects

3.3.10 Due to the properties of the waste that will be accepted there is a low potential to attract birds, vermin and insects. No specific measures are therefore required, however, visual inspections will be carried out by the weighbridge clerk at the point of acceptance with further assessment by site operatives when the waste is deposited. Daily site inspections will also be undertaken to identify any potential issues that may arise.

Noise and Vibration

3.3.11 A Noise Impact Assessment (NIA) was conducted in February 2021 to support the infilling and restoration works at Skelbrooke Quarry northern Extension area. This NIA has been included is **Appendix SS3**. The NIA assessed the impact from the infill and restoration work on the closest residential receptors, including properties along Straight Lane and off Doncaster Lane and Leys Lane, as well as Priory Farm.

3.3.12 The NIA is based on the following plant and equipment being used at the site to support the restoration works:-

- D6 Dozer
- A30 Dump Truck
- PC 210 Excavator
- HGV Tipper
- Water Pump
- Water Bowser (occasional)
- Portable Generator

3.3.13 The baseline sound measurements were undertaken in positions adjacent to potential receptors to identify typical background and residual levels when the site is not operational. The representative background sound measurements taken adjacent to the nearest residential receptors along Doncaster Road, Leys Lane and the A1 road network. The background noise environment is dominated by distant road traffic.

3.3.14 The greatest predicted rating noise levels modelled were modelled at +1 to +4 dB above the baseline sound level (LA90) at nearest noise sensitive receptors, located off Doncaster Lane, and are below the residual sound levels for this receptor position. The rating levels at all other receptor locations were all modelled at below the corresponding baseline sound levels.

3.3.15 The NIA recommendations included the below to ensure that 'best practice' is applied:

- All mobile plant used on site to have 'broadband' type reverse alarms (i.e. no tonal 'beeper' type).
- Proposed operating hours to be restricted to those described in the report.

- Maintain the mobile plant and ensure all silencers are fitted and in good working order and effective.
 - Ensure the haul road between the plant area is well maintained, minimum gradient and as smooth as practicable.
 - Drivers of HGV's or mobile plant should be instructed to avoid leaving engines running unnecessarily or excessive revving of engines.
 - Avoid the use of speed restrictions 'humps'.
 - As far as practicable, maintain maximum separation distance for plant to receptors located north off Doncaster Lane. For example, keep any fixed plant such as water pumps or portable generators as far south of the site as possible and HGV tipper vehicle haul roads as far south as practicable.
 - Provide liaison with local residents to inform them of site activities and a means of contact in case of any complaints.
- 3.3.16 To reduce any potential impact on receptors, operational hours will be restricted to those outlined below to reduce any nuisance to the local population.
- 07:30 to 18:00 Monday to Friday
 - 07:30 to 13:00 Saturday
 - No working on Sundays or Bank Holidays
- 3.3.17 Owing to the results of the NIA presented in **Appendix SS3**, it is deemed that a Noise Management Plan (NMP) will not be necessary for the site.
- 3.3.18 The NIA recommendations comprise Best Available Techniques (BAT) which would be applied in relation to the plant operation and site noise management to comply with BS5228 guidance on mitigation and minimising noise.

Specific EMS Procedures

- IMS-FRM-019 Environmental Aspects and Impacts Form
- STC WI 007 Environmental Monitoring
- IMS-FRM-025 Daily Monitoring Form
- IMS-FRM-065 Environmental Monitoring Non-Conformance Form
- IMS-FRM-068 Emergency Management Plan
- IMS-PRO-005 CAR Response Procedure
- IMS-PRO-013 Accident and Incident Reporting Procedure
- IMS-PRO-014 Preventive and Corrective Action
- IMS-PRO-016 Aspects and Impacts Procedure
- IMS-PRO-044 Environmental Monitoring Procedure
- IMS-PRO-051 Environmental Installation Checks Procedure
- IMS-PRO-062 Control of Noise at Work Procedure
- IMS-PRO-089 Waste Acceptance Procedure
- IMS-PRO-093 Amenity Impact Control Procedure
- IMS-PRO-094 Waste Handling Procedure
- IMS-PRO-101 Monthly Site Inspection Procedure
- IMS-UG-015 Permit Breach Notification Guidance
- IMS-UG-016 Environmental Permit Installation Checks Guidance
- IMS-UG-017 Landfill Monitoring and Analysis Guidance
- IMS-UG-018 Environmental Aspects Assessment Guide

3.4 Management Systems

Groundwater

- 3.4.1 Due to the fact that the deposited waste will be uncontaminated and will principally consist of mineral wastes, and soils and stone originating from the locality, there is no requirement for groundwater management aside from continued pumping within the parameters of the current discharge consent to prevent overspill and potential localised flooding.

Surface Water

- 3.4.2 Surface water management will not be required. Surface water from the adjacent Skelbrooke Landfill Site will continue to be discharged into Skelbrooke Extension Area void whilst tipping is underway. During the final stage of the main Skelbrooke Landfill Site, a wetland area will be established within the footprint of the Skelbrooke Quarry Extension Area void to act as an attenuation lagoon for the Skelbrooke Landfill Site.

3.5 Equipment Maintenance

- 3.5.1 On-site, a Planned Preventative Maintenance program (PPM) will be implemented to minimize health, safety and environmental risks. This involves regular servicing and inspections of all relevant items and elements, following either a predetermined schedule or the manufacturers' maintenance recommendations.
- 3.5.2 A comprehensive inventory of the plant will be maintained on-site, including information on routine maintenance. Each piece of equipment will have a dedicated Maintenance log, contributing to a decrease in the probability of plant failure.
- 3.5.3 All site personnel will undergo appropriate training and are required to promptly report any incidents to the Site Manager.

Specific EMS Procedures

- STC WI 007 Environmental Monitoring
- IMS-PRO-093 Amenity Impact Control Procedure
- IMS-PRO-094 Waste Handling Procedure
- IMS-UG-031 Waste Acceptance Guidance
- IMS-PRO-164 Compliance Testing Procedure
- IMS-FRM-191 Waste Sampling Plan
- IMS-PRO-101 Monthly Site Inspection Procedure
- IMS-UG-016 Environmental Permit Installation Checks Guidance
- IMS-UG-018 Environmental Aspects Assessment Guide

3.6 Accident Management

Emergency Planning

- 3.6.1 An Environmental and Accidents Risk Assessment (*Doc. Ref.: WR7640/08*) has been prepared in support of this application. As part of this, a matrix has been prepared in accordance with EA guidance which identifies potential hazards, their likelihood, and resulting consequences, as well as the risk management measures that will be put in place to ensure that risks are acceptable.

- 3.6.2 To ensure ongoing conformance to management requirements and the facilitation of continuous improvement, the operator will subject the system to periodic audits conducted by independent auditors.

Emergency Contact

- 3.6.3 In the event of any significant environmental emergency/incident, a representative of DQL will notify the EA by telephone immediately, but first having due regard for the incident at hand and any remediation actions required to ensure the safety of site personnel and the immediate environment.
- 3.6.4 Details of any environmental incident will be confirmed to the EA in writing, on the next working day after identification of the incident. This confirmation will include: the time and duration of the incident, the receiving environmental medium or media where there has been any emission as a result of the incident, an initial estimate of the quantity and composition of any emission, the measures taken to prevent or minimise any further emission and a preliminary assessment of the cause of the incident.
- 3.6.5 Any incident notified to the EA will be investigated, and a report of the investigation sent to the EA. The report will detail, as a minimum, the circumstances of the incident, an assessment of any harm to the environment and the steps taken to bring the incident to an end. The report will also set out proposals for remediation and for preventing a repetition of the incident.

Control of Fires

- 3.6.6 As part of the ongoing operations, arrangements will be made, as necessary, with the local fire liaison officer to visit the site and discuss the relevant operations with the client. Any specific advice given by the fire liaison officer can then be incorporated into the site's management plan as appropriate.
- 3.6.7 No waste will be burned within the confines of the site boundary. Due to the nature of waste stored in other areas of the site, all fires within the facility will be treated as a potential emergency and dealt with accordingly. Fires may occur in relation to:
- Plant failure – fixed or mobile plant fires; and
 - Within non-conforming waste loads awaiting removal from the site.
- 3.6.8 In the event that a fire occurs at the facility, the following actions would be undertaken:
- Person(s) discovering a fire will raise the alarm;
 - Report the incident to the Site Business Manager / nominated person;
 - All site personnel and visitors will be accounted for and evacuated to a safe location;
 - Contact the emergency services and state the nature of the incident;
 - Follow all instructions given by the emergency services;
 - If the fire can be controlled without endangering operatives, appropriate actions will be undertaken using available firefighting equipment. Fires will be tackled by a minimum of two site operatives;
 - Ensure access is clear for the emergency services but prevent access to the facility from anyone else until the emergency is over; and
 - The EA will be informed forthwith of any fires that occur at the facility.
- 3.6.9 Firefighting equipment will be available at the facility and will be clearly marked and tested, at appropriate intervals, to confirm their suitability and functionality.

Site personnel will be made aware of the locations of all firefighting equipment and will be trained in their correct use.

- 3.6.10 A record of the occurrence of a fire will be maintained in the site log, along with any actions taken. An Incident and Accident Report will be completed by the Site Business Manager.
- 3.6.11 Following approval by the fire services and/or facility manager the residues from the fire will be disposed of accordingly at a suitable permitted waste management facility.

Explosions

- 3.6.12 Due to the nature of the wastes accepted at the facility, the likelihood of the materials containing explosive elements is highly unlikely. However, awareness and caution will be practised with all staff and to ensure no other waste is accepted that has explosive properties, the waste acceptance procedures identified in **Section 2.0** will ensure that unauthorised waste types are prevented from entering the facility.
- 3.6.13 In the unlikely event that materials with explosive elements are discovered within a waste delivery that has already been accepted, the following action would be taken:
- Contact the Site Business Manager or in his absence the Site Supervisor;
 - Check that all site personnel and visitors are accounted for and are moved to a safe location;
 - Contact the emergency services and state the nature of the incident (including whether any fires have occurred);
 - Follow all instructions given by the emergency services;
 - If injuries have occurred medical assistance will be called;
 - No further wastes will be accepted at the facility until the Site Business Manager has given authority; and
 - The EA will be informed forthwith of any arisings of explosive materials or any explosions that occur.
- 3.6.14 Once the emergency is over and the emergency services have declared that the area is made safe, an incident/accident report shall be completed. A written account of the incident will also be forwarded to the EA no later than 14 days after the incident.

Flooding

- 3.6.15 Following a review of the Environment Agency flood risk map, the site is not at risk of flooding. The site is located outside the floodplain and is not likely to flood, even in extreme conditions. This takes into account the effect of any flood defences that may be in this area, whether or not these are currently illustrated on the EA Flood Map.

Control of Leaks and Spillages

- 3.6.16 Daily visual inspections of the operational and processing surfaces will be conducted. In the event of a spillage, facility operatives will inform the Site Business Manager or Supervisor who is responsible for assessing the situation and deciding on the most appropriate actions to be undertaken.

- 3.6.17 All necessary measures will be taken to contain any spillage or discharge by means of suitable material and equipment. The actions undertaken will depend on the size of the spillage, the location of the spillage in relation to sensitive receptors and the nature of the spilled material.
- 3.6.18 Where spillages of dry wastes occur, these will be cleared by either manual or mechanical means, for example handpicking, sweeping or shovelling, dependant on the size and location of the spillage.
- 3.6.19 Minor spillages of liquid will be contained using spillage kits or any suitable readily available absorbent material. This material will be disposed of in a manner appropriate to the type of material absorbed.
- 3.6.20 If a major spillage of liquid occurs, such as heavy plant oil/fuel, the following actions will be undertaken, where appropriate:-
- Ensure no risk of off-site transfer;
 - Report the occurrence to the Site Business Manager immediately;
 - Trained facility operatives will take immediate action to try and contain the leak where it is safe to do so;
 - If it is safe to do so, the cause of the spill or leak will be isolated and/or moved to a bunded area;
 - If the liquid spillage is large, inert low permeability material such as clay will be used to make a temporary containment bund to prevent further transfer of the spillage. The Site Business Manager or designated person will contact the EA to discuss best practicable disposal options;
 - Access to the immediate area should be restricted until a disposal/clean up solution is implemented;
 - If the spillage cannot be contained using approved methods, senior management will be contacted immediately, and specialist advice and help will be sought; and
 - If a vehicle or item of plant is identified as leaking, wherever practicable, it will be stored on an impermeable pavement (at the site offices/garages) / highly compacted made ground within a bunded area, where the spillage can be contained until such time as a repair is affected.
- 3.6.21 The Environment Agency will also be informed immediately of major spillages, having due regard to first take appropriate measures to deal with any emergency in hand.
- 3.6.22 The locations of spillage kits and other emergency equipment will be detailed within an appropriate plan.

Investigation of Accidents and Incidents

- 3.6.23 For any accident, incident or dangerous occurrence, an Incident and Accident Report will be completed by the Site Business Manager. All relevant details of the accident, incident or dangerous occurrence will be recorded, together with any additional statement, photographs, logs or records that may assist in the full investigation of the accident, incident or dangerous occurrence.
- 3.6.24 After an Environmental Incident and Emergency has been made safe, an investigation will be conducted, if necessary, by the Site Business Manager and other Company Personnel as appropriate.

Specific EMS Procedures

- IMS-FRM-019 Environmental Aspects and Impacts Form
- IMS-FRM-025 Daily Monitoring Form
- IMS-FRM-037 Fire Risk Assessment Report
- IMS-FRM-065 Environmental Monitoring Non-Conformance Form
- IMS-FRM-068 Emergency Management Plan
- IMS-PRO-005 CAR Response Procedure
- IMS-PRO-013 Accident and Incident Reporting Procedure
- IMS-PRO-014 Preventive and Corrective Action
- IMS-PRO-016 Aspects and Impacts Procedure
- IMS-PRO-031 Fire Prevention Procedure
- IMS-PRO-051 Environmental Installation Checks Procedure
- IMS-PRO-093 Amenity Impact Control Procedure
- IMS-PRO-101 Monthly Site Inspection Procedure
- IMS-UG-015 Permit Breach Notification Guidance
- IMS-UG-016 Environmental Permit Installation Checks Guidance
- IMS-UG-017 Landfill Monitoring and Analysis Guidance
- IMS-UG-018 Environmental Aspects Assessment Guide
- IMS-PRO-017 Environment Incident Reporting Procedure
- IMS-PRO-067 Lessons Learnt Procedure

3.7 Operational Contingency Plans

Waste Acceptance and Deposition

- 3.7.1 Should the site be unable to function under normal conditions due to unforeseen events, including but not limited to plant breakdowns, emergency and/or environmental incidents, and logistical issues, alternative measures will be implemented. These alternative measures may include the following:

- Adjust delivery times/days for incoming waste
- Minimize waste activities
- Halt all waste operations
- Reroute scheduled waste deliveries to other appropriately permitted internal sites or authorized third-party locations

Vehicles, Plant and Equipment

- 3.7.2 In the event of a breakdown in vehicles, plant, or machinery, the supplier will be notified for investigation and repair of the breakdown. If the machine is not expected to be operational for an extended period, efforts will be made to procure an alternative machine from the supplier to facilitate continued operations in the interim.

Weighbridge

- 3.7.3 If the weighbridge system experiences a failure, upon the arrival of a waste-delivering vehicle at the weighbridge, the operator will inform the driver about the non-operational status of the system. If it is possible, manually generated computer-printed tickets will be produced, entering either estimated weights or those obtained from the weight indicators. In situations where ticket printing is not feasible, the operator will manually input details on the manual weighbridge ticket.

- 3.7.4 These details include the following:

- Facility address
- Permit number, License authority, and License holder
- Date and time
- Unique ticket number
- Gross weight
- Tare weight
- Net weight
- Customer details, including name, waste carrier's license, vehicle registration, and driver's name
- Waste type and EWC code
- Signatures from both the weighbridge attendant and the vehicle driver

3.7.5 The weighbridge operator will confirm the gross weight with the vehicle driver. If an historic tare weight is available, it will be entered, or the weight from the vehicle's MOT plate will be used to calculate the net weight.

3.8 Monitoring Plan

During Operations

3.8.1 Due to the nature of the waste to be deposited, there will not be any monitoring during the operational period will be limited to the groundwater and surface water, as detailed in the Hydrogeological Risk Assessment.

3.8.2 Landfill gas monitoring will not be required owing to the nature of the waste (primarily quarry fines and sub-soils) to be deposited.

Post Closure / Aftercare

3.8.3 The post closure management will be minimal owing to the nature of the waste. As the quarry fines, soil and stones that will be tipped into the void will be clean and compatible with the locality, the waste will be of very low pollution risk and will not produce gas. Therefore, there will be no subsequent aftercare or monitoring requirements.

3.8.4 Following completion of the waste activities, the void will be utilised to create wetland and ecological habitats. Subsequent to this restoration, the site permit will be surrendered.

3.9 Complaints

3.9.1 The company has established a Complaints Procedure, which is an integral component of the site's management system.

3.9.2 Contact information for the site is displayed on a notice board near to the site entrance. This information includes the name of the permit holder (Darlington Quarries Limited), an emergency name and contact number, a statement that the site is permitted by the Environment Agency, the permit number (EPR/CP3994ZR), and the Environment Agency non-emergency contact number (03708 506506) and incident hotline number (0800 807060).

Specific EMS Procedures

- IMS-FRM-001 You Said We Did Form

3.10 Staff Training and Competence

Staff Training

- 3.10.1 The documented management systems will outline training requirements for all relevant staff, encompassing:
- Awareness of the regulatory implications of the Permit for their activity and work tasks.
 - Awareness of all potential environmental effects resulting from operations under normal and abnormal circumstances.
 - Awareness of the necessity to report any deviations from the Permit.
 - Prevention of accidental emissions and the actions to be taken in the event of accidental emissions.
- 3.10.2 The skills and competencies necessary for key positions will be documented, and records of training needs and training received for these positions will be maintained. Key positions include those of contractors and individuals involved in purchasing equipment and materials.
- 3.10.3 The potential environmental risks associated with the work of contractors will be assessed, and instructions will be provided to contractors regarding the protection of the environment while working on site.
- 3.10.4 Compliance with existing industry standards or codes of practice for training, if available, is expected.
- 3.10.5 Training will be provided to ensure that all workers possess a satisfactory understanding of their responsibilities concerning environmental and health & safety issues on site.

Competency Management System (CMS)

- 3.10.6 FCC Environment has recently implemented a Competency Management System (CMS), which has received certification from its accrediting body.
- 3.10.7 The Competency Management System serves as an alternative mechanism to the Certificate of Technical Competence (COTC) / Technically Competent Management (TCM) regime for showcasing competence at sites with PPC permits.
- 3.10.8 Essentially, employees within the CMS Scheme (Managers, Supervisors, Technicians, Advisors, etc.) are required to:
- Successfully complete their CMS assessments within the designated timeframe set by their assessor.
 - Review and uphold their competency through Continued Professional Development (CPD), participating in both Permit Compliance and Duty of Care courses, with refreshers every 3 years.
 - Submit CPD records during IDS review for discussion with their line manager.
 - Familiarize themselves with and adhere to the requirements of the relevant IMS procedures (detailed below) and their associated user guides and forms.
 - Update pertinent site documents and procedures, including management plans and working plans, to reflect any changes.

Specific EMS Procedures

- IMS-PRO-001 Training - Planning Procedure
- IMS-PRO-003 Training - Employee New and Existing Procedure
- IMS-PRO-029 Agency Worker Induction Procedure
- IMS-PRO-103 Change of Manager Handover Induction Procedure
- IMS-FRM-101 Change of Manager Form
- IMS-FRM-017 Agency Worker Induction Checklist
- IMS-PRO-067 Lessons Learnt Procedure
- IMS-FRM-060 Working with Waste Form
- IMS-FRM-170 CMS Standardisation Meeting Agenda
- IMS-POL-007 Competence Management System Policy 2019
- IMS-PRO-086 Continued Professional Development Procedure
- IMS-PRO-087 CMS Planning Procedure
- IMS-PRO-168 Performance Monitoring and Measurement Procedure
- IMS-UG-030 CMS User Guide.
- IMS-UG-054 CMS Assessment Strategy User Guide.
- IMS-UG-055 Introduction to Task Books

3.11 Documentation of Legislative and Other Requirements

- 3.11.1 Copies of planning permissions, environmental permits, and other pertinent permissions are retained, either in the form of hard copy records or electronically.
- 3.11.2 Technically competent managers stay current with additional legal requirements and updates to relevant environmental legislation by monitoring trade magazines and the Environment Agency website.

Specific EMS Procedures

- IMS-UG-042 Site Filing System Guidance
- IMS-UG-006 Information Area Guide
- IMS-UG-001 IMS1 Document Library User Guide

3.12 Management Reviews

- 3.12.1 Management conducts periodic reviews of the company's environmental performance by examining environmental audit reports and daily site records.
- 3.12.2 The environmental policy statement is also subject to periodic reviews to ensure alignment with the company's operations and environmental objectives.

Specific EMS Procedures

- IMS-PRO-067 Lessons Learnt Procedure
- IMS-FRM-007 FCC Objectives and Target Report Template
- IMS-PRO-006 Management Review Procedure
- IMS-FRM-003 Management Review Agenda
- IMS-FRM-004 Management Review Meeting Minutes Template
- IMS-FRM-007 FCC Objectives and Target Report Template

3.13 Additional Management Certification

- 3.13.1 FCC Environment demonstrates its dedication to energy management by obtaining BSI certification to ISO 50001. ISO 50001 enables FCC Environment to meet statutory energy efficiency requirements, including reducing carbon

emissions, lowering energy costs, and showcasing best practices in energy management to customers, employees, and other stakeholders. A copy of the Energy Management System ISO 50001 certificate is available on the FCC Environment website.

- 3.13.2 Beyond the requirements of the Environmental Management System, FCC Environment holds certification that encompasses written procedures for handling, investigating, communicating, and reporting environmental complaints, along with the implementation of appropriate actions. These procedures are covered in the BSI certification for 'Occupational Health & Safety Management System' (ISO 45001) and 'Occupational Health and Safety certificate' (OHSAS 18001). These certifications are also accessible on the FCC Environment website.